ATTACHMENT 2

Detailed Budget for Rounds 1 and 2

Explanation of Department of Ecology Agency Standard Calculations for FTE included after Round 2 budget detail.

Round 1

Component 1 – Coordination and Partnerships

Object	Cost	Assumption
Personnel	$26,568	0.4 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$8,077	Dept. of Ecology standard of 30.4% of salary
Travel	$407	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$0	None
Supplies	$1,726	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$0	None
Subtotal Direct Costs	$36,778	
Indirect Costs	$11,363	Agency standard of 32.8% of salary plus benefits
Total Costs	**$48,142***	

Component 2 – Investments

Object	Cost	Assumption
Personnel	$79,704	1.2 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$24,230	Dept. of Ecology standard of 30.4% of salary
Travel	$1,225	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$50,000*	Justification for "Equipment" costs for Component 2 included at the end of this document.
Supplies	$5,179	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$2,661,146**	See below
Subtotal Direct Costs	$2,821,484	
Indirect Costs	$34,090	Agency standard of 32.8% of salary plus benefits
Total Costs	**$2,855,574**	

**In Attachment 3, this equipment purchase is included in Component 2, Investment B2*

***Explanation of "Other" costs for Component 2 in table below*

Subcomponent	Element from Strategic Framework (see framework for more details)	Cost
B1	Reduce Use/Generation & Promote Safer Alternatives	$ 329,000
B2	Prevent PBTs & Other Chemicals of Concern	$ 400,000
B3	Education & Technical Assistance	$ 150,000
C1	Fund Activities to Control Sources of Nutrients	$ 455,573
C2	Innovative Treatment & Control Technologies	$ 926,573
C6	Evaluate WQ Standards	$ 100,000
	10% Set-Aside for Cross Cutting Projects	$ 300,000
	Total	$2,661146

Component 3 – Adaptive Management

Object	Cost	Assumption
Personnel	$26,568	0.4 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$8,077	Dept. of Ecology standard of 30.4% of salary
Travel	$407	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$0	None
Supplies	$1,726	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$0	None
Subtotal Direct Costs	$36,778	
Indirect Costs	$11,363	Agency standard of 32.8% of salary plus benefits
Total Costs	**$48,142***	

Component 4 – Project Management

Object	Cost	Assumption
Personnel	$26,568	0.4 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$8,077	Dept. of Ecology standard of 30.4% of salary
Travel	$407	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$0	None
Supplies	$1,726	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$0	None
Subtotal Direct Costs	$36,778	
Indirect Costs	$11,363	Agency standard of 32.8% of salary plus benefits
Total Costs	**$48,142***	

Component 5 – Match

Object	Cost	Assumption
Personnel	$0	None
Fringe Benefits	$0	None
Travel	$0	None
Equipment	$0	None
Supplies	$0	None
Contracts	$0	None
Other	$3,000,000	Match from 2010 Capital Supplemental Budget for stormwater projects. The Stormwater Retro Fit and LID program helps communities work towards protecting and recharging aquifers and reducing the run-off of toxics and nutrients into Puget Sound. Grant funds are awarded to local governments and non-profit organizations in the Puget Sound area. The grants are for the management of stormwater through planning, implementation, regulation, and prevention.
Subtotal Direct Costs	$3,000,000	
Indirect Costs	$0	
Total Costs	**$3,000,000**	

Round 2

Component 1 – Coordination and Partnerships

Object	Cost	Assumption
Personnel	$79,704	1.2 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$24,230	Dept. of Ecology standard of 30.4% of salary
Travel	$1,222	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$0	None
Supplies	$5,179	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$0	None
Subtotal Direct Costs	$110,335	
Indirect Costs	$34,090	Agency standard of 32.8% of salary plus benefits
Total Costs	**$144,426***	

Component 2 – Investments

Object	Cost	Assumption
Personnel	$239,112	3.6 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$72,690	Dept. of Ecology standard of 30.4% of salary
Travel	$3,674	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$0	None
Supplies	$15,538	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$8,133,438**	See below
Subtotal Direct Costs	$8,464,451*	
Indirect Costs	$102,271	Agency standard of 32.8% of salary plus benefits
Total Costs	**$8,566,722**	

***Explanation of "Other" costs for Component 2 in table below*

Subcomponent	Element from Strategic Framework (see framework for more details)	Cost
A1	ID/Prioritize Sources of Toxics	$ 450,000
A2	ID/Prioritize Sources of Nutrients	$ 250,000
B1	Reduce Use/Generation & Promote Safer Alternatives	$ 300,000
B2	Prevent PBTs & Other Chemicals of Concern	$ 820,000
B3	Education & Technical Assistance	$ 321,719
C1	Fund Activities to Control Sources of Nutrients	$ 2,766,719
C2	Innovative Treatment & Control Technologies	$ 550,000
C5	Increase Compliance & Enforcement	$ 750,000
C6	Evaluate WQ Standards	$ 800,000
D1	Remediation & Cleanup	$ 225,000
	10% Set-Aside for Cross Cutting Projects	$ 900,000
	Total	$8,133,438

Component 3 – Adaptive Management

Object	Cost	Assumption
Personnel	$79,704	1.2 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$24,230	Dept. of Ecology standard of 30.4% of salary
Travel	$1,222	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$0	None
Supplies	$5,179	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$0	None
Subtotal Direct Costs	$110,335	
Indirect Costs	$34,090	Agency standard of 32.8% of salary plus benefits
Total Costs	**$144,426***	

Component 4 – Project Management

Object	Cost	Assumption
Personnel	$79,704	1.2 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$24,230	Dept. of Ecology standard of 30.4% of salary
Travel	$1,222	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$0	None
Supplies	$5,179	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$0	None
Subtotal Direct Costs	$110,335	
Indirect Costs	$34,090	Agency standard of 32.8% of salary plus benefits
Total Costs	**$144,426***	

Component 5 – Match

Object	Cost	Assumption
Personnel	$0	None
Fringe Benefits	$0	None
Travel	$0	None
Equipment	$0	None
Supplies	$0	None
Contracts	$0	None
Other	$9,000,000	Match from 2010 Capital Supplemental Budget for stormwater projects. The Stormwater Retro Fit and LID program helps communities work towards protecting and recharging aquifers and reducing the run-off of toxics and nutrients into Puget Sound. Grant funds are awarded to local governments and non-profit organizations in the Puget Sound area. The grants are for the management of stormwater through planning, implementation, regulation, and prevention.
Subtotal Direct Costs	$9,000,000	
Indirect Costs	$0	
Total Costs	**$9,000,000**	

Rounds 3 - 6

Component 1 – Coordination and Partnerships

Object	Cost	Assumption
Personnel	$318,816	1.2 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$96,920	Dept. of Ecology standard of 30.4% of salary
Travel	$4,892	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$0	None
Supplies	$20,716	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$0	None
Subtotal Direct Costs	$441,344	
Indirect Costs	$136,360	Agency standard of 32.8% of salary plus benefits
Total Costs	**$577,704**	

Component 2 – Investments

Object	Cost	Assumption
Personnel	$956,448	3.6 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$290,760	Dept. of Ecology standard of 30.4% of salary
Travel	$14,692	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$0	None
Supplies	$62,152	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$32,533,752	None (see Attachment 3-Budget Overview)
Subtotal Direct Costs	$33,857,804	
Indirect Costs	$409,084	Agency standard of 32.8% of salary plus benefits
Total Costs	**$34,266,888**	

Component 3 – Adaptive Management

Object	Cost	Assumption
Personnel	$318,816	1.2 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$96,920	Dept. of Ecology standard of 30.4% of salary
Travel	$4,892	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$0	None
Supplies	$20,716	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$0	None
Subtotal Direct Costs	$441,344	
Indirect Costs	$136,360	Agency standard of 32.8% of salary plus benefits
Total Costs	**$577,704**	

Component 4 – Project Management

Object	Cost	Assumption
Personnel	$318,816	1.2 FTE of Environmental Planner 4 / Environmental Specialist 5
Fringe Benefits	$96,920	Dept. of Ecology standard of 30.4% of salary
Travel	$4,892	Dept. of Ecology standard of $1,021 per FTE based on previous actual expenses
Equipment	$0	None
Supplies	$20,716	Dept of Ecology standard of $4,316 per FTE based on previous actual expenses
Contracts	$0	None
Other	$0	None
Subtotal Direct Costs	$441,344	
Indirect Costs	$136,360	Agency standard of 32.8% of salary plus benefits
Total Costs	**$577,704**	

Component 5 – Match

Object	Cost	Assumption
Personnel	$0	None
Fringe Benefits	$0	None
Travel	$0	None
Equipment	$0	None
Supplies	$0	None
Contracts	$0	None
Other	$36,000,000	Funds are normally appropriated by the legislature to Ecology in the capital and operating budgets. Grants are awarded competitively to local jurisdictions and communities in and around Puget Sound for high priority watershed planning, water quality improvement, stormwater, and toxic cleanup projects. These funds are projected to be available in sufficient quantities in years three through six of the program to support state match requirements. Ecology assumes the Governor and legislature will continue funding support for major ongoing programs such as the Centennial Clean Water capital program, the Remedial Action Grant (RAG) capital program which cleans up toxic contamination, Watershed Plan Implementation capital projects, and Watershed Planning activities from the operating budget. These programs and projects are well established and supported by stakeholders.
Subtotal Direct Costs	$36,000,000	
Indirect Costs	$0	
Total Costs	**$36,000,000**	

STANDARD COST ASSUMPTIONS
FOR 2011
Updated November 2010

Purpose of Standard Costs: Ecology uses standard costs for consistency and credibility. Using standard costs allows the estimator to concentrate on more important activities. They can be used as a package for a quick estimate or as a starting point when there is more time or information.

Basis and Application: Standard costs are based on prior year average costs or current actual costs.

Salaries: For Fiscal Notes: whenever practical, estimated salary costs are based on the specific job classifications appropriate for conducting the work identified in the fiscal note. The FTE classifications proposed under this grant are either Environmental Planner 4 or Environmental Specialist 5. Both of these classifications are at pay range 59, with the salary listed to the right. **Average Direct Program Salary:** Sometimes, it is necessary to make an estimate based on standard costs. Average program salary per FTE for FY11 estimated at FY10 actuals is $62,987 (approximately Step L of an Environmental Specialist 4).	**$66,420**
Benefits: Average agency benefits rate per FTE is **30.4%**, the projected FY11 benefit rate from the May 2010 SPS file. At the average program salary, the average program benefits are $19,148. Includes Social Security, Retirement, Medical and Health Insurance, and MEDICARE.	**$19,148**
Supplies (Goods and Services): Average direct Goods and Services per FTE, estimated at FY10 actuals plus 1.3% inflation. Included in the agency standard are things like office supplies, phones, employee development, vehicle operating costs, IT costs and printing.	**$4,316**
Travel: Average travel per FTE, estimated at FY10 actuals plus 1.3% inflation. Estimates 11 trips to downtown Seattle, 14 trips to Tacoma, and 8 trips to downtown Olympia from the Ecology Headquarters building using the standard $0.51 per mile reimbursement rate. Assumes travel will be for various meetings.	**$1,021**
Indirect Costs: Calculated at the Federal indirect rate of **32.8%** of direct salaries and benefits. Includes rents, utilities, executive, regional administrative support, communication & education, budget, accounting, employee services, and central services agency charges. Indirect costs are shown in the Expenditures by Object table as "Agency Administrative Overhead".	**$26,940**

EQUIPMENT PURCHASE JUSTIFICATION
XRF Justification – ESTIMATED COST $50,000

The Department of Ecology has a role in protecting the public from unreasonable risks, including toxicity from metals in consumer products. The use of a mobile XRF analyzer allows for fast, on-the-spot screening capabilities without destroying the test subject. US Customs, FDA, EPA, DOE, and International Customs Agencies use this type of analyzer for rapid screening analysis for toxic metals.

The Department of Ecology wants to purchase an XRF analyzer for use in multiple projects under our safer alternatives work (B1 in the Technical Approach). The equipment would be owned by Ecology but could be used by Ecology staff in partnership with sub-awardees in our safer alternatives work.

An XRF instrument has many advantages. For the purposes of safer consumer products, however, the most important advantages are:

1. Portability and ease of use
2. Ability to obtain immediate results
3. Use as a quick, non-destructive screening tool

1. Portability and ease of use:

The XRF instrument is small, portable and may easily be used in the field. It is a hand held device and therefore may be used in a wide range of circumstances where consumer products are tested. Although the legal ramifications have not been resolved as yet, it is technically feasible to take an XRF instrument into a store and test products on the shelf. If this proves infeasible, any samples collected for analysis can be taken to Ecology for immediate analysis. The instrument is simple and with minimal training can be used to obtain results on a wide range of elements. It can be connected to a portable computer and the results downloaded for reporting and manipulation.

2. Ability to obtain immediate results:

Most laboratories commit to analyze a sample within 10 business days at standard prices. Shorter analytical periods are possible at premium prices. The XRF provides results within minutes and can help direct sampling efforts by enabling Ecology to obtain immediate results on consumer products which may contain chemicals of concern. Typical screening of consumer products would occur within minutes and considerable time and effort will be saved by obtaining immediate results on consumer products. This would allow Ecology to better focus its sampling efforts and concentrate on those consumer products of greatest concern.

3. Use as a quick, non-destructive screening tool:

An XRF can screen for elements of interest without requiring extensive sample prep techniques. Most samples can be tested simply by placing in front of the XRF and pressing a button. The samples are not destroyed prior to analysis and there is no loss of chemicals of concern as can happen with standard laboratory prep methods. Different portions of the product can be tested and specific results obtained for each section of the product. These results would be averaged to obtain results for the product as a whole. All of this can be accomplished in minutes without destroying the product. In addition, the XRF would prove to be a valuable screening tool. Ecology would send only those samples requiring confirmatory analysis to the laboratory. By obtaining immediate screening results, Ecology will substantially reduce its analytical laboratory costs and use limited funding only on those products potentially containing chemicals of concern.

Intended Use

The XRF is being used throughout the world to screen consumer products. The European Union is developing techniques using the XRF to screen electronic products for compliance with its regulations. The ASTM has developed a method (F2617-08) to screen for several elements in polymeric materials. In addition, the XRF has been used extensively by the Toxics in Chemicals Clearinghouse (TPCH) to select products for conformational laboratory analysis and potential enforcement. Starting in 2006 with a grant from EPA, the TPCH has screened thousands of packages and packaging components for lead, mercury, cadmium and chromium. Samples which failed the screen were sent to laboratories for standard chemical analyses which lead to several state enforcement efforts. The XRF has been instrumental in increasing businesses' awareness of toxic metals in packaging. Recent sampling efforts have shown a decrease in the use of these metals. An XRF will produce the same level of improvement in consumer products in general.

Costs

Ecology staff have explored several different manufacturers and recommend purchase from Innov-X Systems. Staff also investigated renting this equipment and concluded that several months of rental cost would equal outright equipment purchase. Since we want to use the equipment for several years, purchase makes more economical sense than rental. Also, the portability and rapid results offered by a mobile system are more desirable than contracting out this testing service.

The estimated cost of an Innov-X Mobile XRF Analyzer is:

Instrument costs:	$30,000
Additional software packages, 3 at $5,000 each	$15,000
Additional supplies (standards, screening stand, etc.)	$5,000
Total:	$50,000

More Information

More information about these systems and their capabilities, including photos, are on the Innov-X webpage, http://www.innovx.com/.